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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/809,132

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Walter M. Marcinkiewicz

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COATS & BENNETT/SONY ERICSSON

1400 CRESCENT GREEN

SUITE 300

CARY, NC 27518

EXAMINER

ZUBAJLO, JENNIFER L

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/809,132	<b>Applicant(s)</b> MARCINKIEWICZ ET AL.	
	<b>Examiner</b> JENNIFER ZUBAJLO	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,7-16,19-24 and 26-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7-16,19-24 and 26-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 5, 9, 14-16, 19-21, 23, 24, 26, 28, 29, 35, 36, 38-46, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mohammad Besharat (Pub. No.: US 2005/0037815 A1) in view of Jon H. Bechtel (Pub. No.: US 2003/0103141 A1).

As to claims 1 and 24, Besharat teaches a system and method of improving visibility of information on a display of a portable electronic device comprising: measuring ambient light with light detection electronics located on the portable electronic device (see [0006], [0017], [0019]); and adjusting a size of information displayed on the display based on the measured ambient light by increasing/decreasing the size of the displayed information as the average measured ambient light decreases/increases (see figure 4 and [0027] and [0029]).

Besharat does not directly teach averaging the measured ambient light over a predefined time to determine an average measured ambient light.

Bechtel teaches averaging the measured ambient light over a predefined time to determine an average measured ambient light (see [0062]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the teaching of averaging the measured ambient light over a predefined time to make display adjustments taught by Bechtel into the measured ambient light level used for adjustment of the display taught by Besharat because it would better represent the ambient light experienced by the human eye (see [0062] of Bechtel).

As to claims 2 and 42, the combination of Besharat and Bechtel teach the method and system taught by claims 1 and 24 respectively (see above rejection). Also, Bechtel teaches measuring the ambient light with light detection electronics comprises detecting the ambient light with a light sensor, and wherein averaging the measured ambient light comprises averaging the detected ambient light over the predefined time to determine the average measured ambient light (see figure 2 and [0062]).

As to claims 5 and 26, the combination of Besharat and Bechtel teach the method and system taught by claims 1 and 24 respectively (see above rejection). Besharat also teaches adjusting at least one of a backlight intensity of the display, and a display contrast based on the average measured ambient light (see figure 7 and Abstract – adjusting the color).

As to claim 9, the combination of Besharat and Bechtel teach the method taught by claim 5 (see above rejection). Besharat teaches adjusting the display contrast comprising adjusting at least one of a font type, font color, and a background color (see Abstract, figure 7, and [0044]).

As to claim 14, the combination of Besharat and Bechtel teach the method taught by claim 5 (see above rejection). Besharat also teaches adjusting at least two of a size of the displayed information, the backlight intensity of the display, and the display contrast based on the average measured ambient light (see Abstract and figures 4 & 7).

As to claims 15 and 35, the combination of Besharat and Bechtel teach the method and system taught by claims 1 and 24 respectively (see above rejection). Besharat teaches generating a table of display adjustment values and storing these values, wherein each display adjustment value corresponds a size of the displayed information to a different ambient light value (see figure 4, [0029] and [0032]).

As to claims 16 and 36, the combination of Besharat and Bechtel teach the method and system taught by claims 15 and 35 respectively (see above rejection). Besharat also teaches wherein adjusting the size of the displayed information based on the average measured ambient light comprises selecting the display adjustment value from the table of display adjustment values that corresponds to the measured ambient

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light, and adjusting the size of the displayed information based on the selected display adjustment value (see figure 4, [0029] and [0032]).

As to claims 19 and 41, the combination of Besharat and Bechtel teach the method and system taught by claims 1 and 24 respectively (see above rejection). Besharat also teaches wherein adjusting the size of the displayed information based on the average measured ambient light comprises automatically adjusting the size of the displayed information based on the average measured ambient light (see figure 4).

As to claim 20, the combination of Besharat and Bechtel teach the method taught by claim 1 (see above rejection). Besharat teaches wherein adjusting the size of the displayed information based on the average measured ambient light comprises receiving a user input and adjusting the size of the displayed information based on the average measured ambient light in response to the user input (see figures 3 and 4).

As to claim 21, the combination of Besharat and Bechtel teach the method taught by claim 1 (see above rejection). Besharat also teaches adjusting at least one of a gamma setting, a white point setting, and a black point setting of the display on the portable electronic device based on the average measured ambient light (see figure 7). This is not taught directly, however adjusting the gamma, white point, or black point settings is for the purpose of enhancing the visibility of color and this is what is described in Besharat.

As to claims 23 and 48, the combination of Besharat and Bechtel teach the method and system taught by claims 1 and 24 respectively (see above rejection). Bechtel also teaches wherein the display on the portable electronic device comprises one of a liquid crystal display, a thin film transistor display, a thin film diode display, an organic light emitting diode, and a super twisted nematic display (see [0070]).

As to claim 28 and 29, the combination of Besharat and Bechtel teach the system taught by claim 24 (see above rejection). Besharat teaches a contrast controller for adjusting a display contrast (see figures 3 and 4 and note that processor 304 is a controller).

As to claim 38, the combination of Besharat and Bechtel teach the system taught by claim 24 (see above rejection). Besharat teaches a user input device for directing the display controller to adjust the size of the displayed information based on the measured ambient light (see figures 3 and 4).

As to claim 39, the combination of Besharat and Bechtel teach the system taught by claim 38 (see above rejection). Examiner is taking Official Notice for the teaching of the user input device comprising of a control button disposed on a housing of the portable electronic device. It is well known in the art for user input devices (especially the user input device shown in figure 3 of Besharat) to comprise a control button.

As to claim 40, the combination of Besharat and Bechtel teach the system taught by claim 38 (see above rejection). Besharat also teaches a speaker for receiving an audible display command from the user (see [0023]-[0025]).

As to claim 43, the combination of Besharat and Bechtel teach the system taught by claim 42 (see above rejection). Besharat also teaches wherein the light detection electronics further comprises a light processor for processing the detected ambient light and determining the average measured ambient light from the processed ambient light (see Abstract and figure 3 - 304).

As to claim 45, the combination of Besharat and Bechtel teach the system taught by claim 24 (see above rejection). Besharat teaches that it is well known for a portable electronic device to be one of a laptop computer, PDA, calculator, etc (see [0004]).

As to claim 46, the combination of Besharat and Bechtel teach the system taught by claim 24 (see above rejection). Besharat teaches a portable electronic device comprising a cellular telephone comprising a transceiver for transmitting and receiving wireless communication signals (see figure 3).



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3. Claims 4, 44, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mohammad Besharat (Pub. No.: US 2005/0037815 A1) in view of Jon H. Bechtel (Pub. No.: US 2003/0103141 A1), further in view of Aaron M. Tsirkel (Pub. No.: US 2003/0122810 A1).

As to claims 4 and 44, the combination of Besharat and Bechtel teach the method and system taught by claims 2 and 24 respectively (see above rejection).

The combination of Besharat and Bechtel do not directly teach the light sensor comprises an image sensor of a camera assembly.

Tsirkel teaches the light sensor comprises an image sensor of a camera assembly (see Abstract, [0011], [0014], and figure 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the camera assembly with image sensors and ambient light sensors taught by Tsirkel into the system and method of improving visibility of information on a display of a portable electronic device taught by the combination of Besharat and Bechtel in order to save power of the portable electronic device.

As to claim 47, the combination of Besharat and Bechtel teach the system taught by claim 46 (see above rejection). Besharat teaches light detection electronics within a cellular telephone (see figure 3).

The combination of Besharat and Bechtel do not directly teach the light detection electronics disposed in a camera assembly within the cellular telephone.

Tsirkel teaches light detection electronics disposed in a camera assembly (see Abstract, [0011], [0014], and figure 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine light detection electronics as part of a camera assembly taught by the combination of Tsirkel with light detection electronics within a cellular telephone taught by the combination of Besharat and Bechtel. This would have been obvious because combining a camera with a cellular phone was common in the art at the time of the invention for the purpose of convenience.

4. Claims 7, 8, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mohammad Besharat (Pub. No.: US 2005/0037815 A1) in view of Jon H. Bechtel (Pub. No.: US 2003/0103141 A1), further in view of Joel C. Van Antwerp (Patent No.: US 4,514,727).

As to claims 7 and 27, the combination of Besharat and Bechtel teach the method and system taught by claims 5 and 27 respectively (see above rejection).

The combination of Besharat and Bechtel do not teach wherein adjusting the backlight intensity of the display based on the average measured ambient light comprises adjusting a pulse width modulation duty cycle of the display based on the average measured ambient light.

Antwerp teaches wherein adjusting the backlight intensity of the display based on the average measured ambient light comprises adjusting a pulse width modulation duty cycle of the display based on the average measured ambient light (see Abstract and column 7 lines 59-63).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Antwerp into a system and method of improving visibility of information on a display of a portable electronic device taught by the combination Besharat and Bechtel in order to provide light control with ambient light compensation.

As to claim 8, the combination of Besharat and Bechtel teach the method taught by claim 5 (see above rejection).

The combination of Besharat and Bechtel do not teach adjusting the backlight intensity of the display based on the average measured ambient light comprising of increasing/decreasing the backlight intensity as the average measured ambient light decreases/increases.

Antwerp teaches adjusting the backlight intensity of the display based on the average measured ambient light comprising of increasing/decreasing the backlight intensity as the average measured ambient light decreases/increases (see Abstract and column 7 lines 59-63).

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5. Claims 10-13 and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mohammad Besharat (Pub. No.: US 2005/0037815 A1) in view of Jon H. Bechtel (Pub. No.: US 2003/0103141 A1), further in view of Naoki Kuwata (EP 1 158 484 A2).

As to claims 10-13, the combination of Besharat and Bechtel teach the method taught by claim 5 (see above rejection).

The combination of Besharat and Bechtel do not teach determining a display temperature by directly measuring the temperature or measuring an ambient temperature and determining the display temperature; and adjusting the bias voltage of the display on the portable electronic device.

Kuwata teaches adjusting the display contrast comprising: determining a display temperature by directly measuring the temperature or measuring an ambient temperature and determining the display temperature based on the measured ambient temperature; and adjusting the bias voltage of the display on the portable electronic device (see [0096] – [0101]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate adjusting the display contrast by determining a display temperature by directly measuring the temperature or measuring an ambient temperature and determining the display temperature based on the measured ambient temperature and adjusting the bias voltage of the display on the portable electronic device taught by Kuwata into a system and method of improving visibility of information on a display of a portable electronic device taught by the combination of Besharat and

Bechtel. It would have been obvious make this combination in order to improve picture quality of the display device.

As to claims 30-34, the combination of Besharat and Bechtel teach the system taught by claim 28 (see above rejection). Kuwata also teaches adjusting the display contrast based by determining a display temperature by directly measuring the temperature or measuring an ambient temperature and determining the display temperature based on the measured ambient temperature; and adjusting the bias voltage of the display on the portable electronic device (see [0096] – [0101]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate adjusting the display contrast by determining a display temperature by directly measuring the temperature or measuring an ambient temperature and determining the display temperature based on the measured ambient temperature and adjusting the bias voltage of the display on the portable electronic device taught by Kuwata into a system and method of improving visibility of information on a display of a portable electronic device taught by the combination of Besharat and Bechtel. It would have been obvious make this combination in order to improve picture quality of the display device.

6. Claims 22 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mohammad Besharat (Pub. No.: US 2005/0037815 A1) in view of Jon H. Bechtel (Pub. No.: US 2003/0103141 A1), further in view of Applicant's Admitted Art.

As to claims 22 and 49, the combination of Besharat and Bechtel teach the method and system taught by claims 1 and 24 respectively (see above rejection). Miller also teaches conversion of display adjustment parameters generated based on the average measured ambient light (see [0025] and figures 5 & 6).

The combination of Besharat and Bechtel do not teach adjusting a second display on the portable electronic device by using a conversion standard to convert display adjustment parameters generated based on the average measured ambient light for a first display on the portable electronic device to display adjustment parameters for the second display on the portable electronic device.

Applicant's Admitted Art states that it is well known for electronic imaging to adjust parameters of multiple displays (see Applicant's [0052]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate converting display parameters derived for one display to display parameters for another display taught by Applicant's Admitted Prior Art into a system and method of improving visibility of information on a display of a portable electronic device taught by the combination of Besharat and Bechtel. It would have been obvious make this combination because it is well known for electronic imaging to adjust parameters of multiple displays.

**Note:** References cited include just some examples that Examiner feels best explain the prior art rejection. However, the entire references teach the scope of the claims in more detail. Examiner recommends that Applicant read the full disclosure.

### ***Response to Arguments***

7. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Averaging of ambient light is also taught by Patent No.: US 7,362,320; Patent No.: US 5,883,605; and Patent No.: US 4,050,085). Backlight and contrast adjustment in response to lighting conditions is taught by Pub. No: US 2002/0163524. A camera assembly with image and ambient light sensors is taught by Patent No.: US 6,870,567.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER ZUBAJLO whose telephone number is (571)270-1551. The examiner can normally be reached on Monday-Friday, 8 am - 5 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on (571) 272-7674. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jennifer Zubajlo/  
9/18/08

/Amare Mengistu/

Supervisory Patent Examiner, Art Unit 2629